



DIAGNOSIS AND TREATMENT OF MICROVASCULAR ENDOTHELIAL DYSFUNCTION LEADS TO IMPROVED QUALITY OF LIFE.

ACC Poster Contributions

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Background: Angina pectoris in the absence of coronary artery disease is a prevalent phenomenon and has been associated with poor quality of life and high utilization of health care. Microvascular endothelial dysfunction directly correlates with myocardial ischemia and is a common cause of angina symptoms.

Methods: Follow-up was obtained in 457 patients with chest pain and mildly diseased coronary arteries who had undergone coronary vascular reactivity evaluation by graded administration of intracoronary acetylcholine (ACh) at the time of diagnostic study. Microvascular endothelial dysfunction was defined as $\leq 50\%$ increase in coronary blood flow (CBF) in response to the maximal dose of ACh compared with baseline CBF. After a median follow-up of 7 (IQR 4.5-12.5) years, QOL was assessed by administration of SF-36 survey.

Results: Patients diagnosed and treated for microvascular endothelial dysfunction experienced increased mental competency (50.9 vs. 48.4, $P=0.05$), vitality (43.4 vs. 38.0, $P=0.042$), and emotional health (55.4 vs. 55.0, $P=0.033$) as compared to patients with normal endothelial function. In subgroup analysis, women diagnosed with microvascular endothelial dysfunction showed improved general health (47.9 vs. 43.2, $P=0.038$), and a trend towards improvement of physical function (49.7 vs. 46.0, $P=0.09$).

Conclusion: This study may suggest that proper diagnosis and treatment for microvascular endothelial dysfunction in patients with angina pectoris is associated with improved QOL.

